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PRE-APPEAL BRIEF REQUEST FOR REVIEW	Docket Number (Optional)
	SIG000114

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to "Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)] on ⟨2/16/06⟩	Application Number	Filed
	10/723,169	11/26/03
Signature *Diane Hudson*	First Named Inventor	
	Daniel Mulligan	
Typed or printed name Diane Hudson	Art Unit	Examiner
	2819	Chang, Daniel

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).
Note: No more than five (5) pages may be provided.

I am the

☐ applicant/inventor.

☐ assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)

☒ attorney or agent of record.
Registration number   33,534

☐ attorney or agent acting under 37 CFR 1.34.
Registration number if acting under 37 CFR 1.34

/Timothy W Markison, reg 33,534/
Signature

Timothy W Markison
Typed or printed name

808 665-1725
Telephone number

2/16/06
Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.
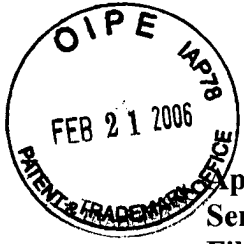
☒ *Total of   1   forms are submitted.

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Daniel Mulligan   **Examiner**: Chang, Daniel D
Serial No: 10/723,169   **Art Group**: 2819
Filing Date: 11/26/2003   **Docket No**: SIG000114
Title: PROGRAMMABLE DRIVER FOR USE IN A MULTIPLE FUNCTION
HANDHELD DEVICE

Date: 2/16/06

Pre-Appeal Brief Request for Review

1.   In the Final Office Action dated August 23, 2005, the Examiner rejected claims 1-
12 under 35 USC § 102 (b) as being anticipated by McMahan (U.S. Patent No.
5,859,541); and claims 13-24 under 35 USC § 103 (a) as being unpatentable over
McMahan (U.S. Patent No. 5,859,541) in view of Pruett (U.S. Patent No. 6,490,121).
Applicant respectfully believes that there is a clear deficiency in the prima facie case in
support of this rejection and requests review of the allowability of claims 1-24.

2.   Claims 1-12 have been rejected under 35 USC § 102 (b) as being anticipated by
McMahan. The applicant respectfully disagrees with the present rejection because at
least one claim element is not met by this reference.

        Claims 1-12 were rejected as being anticipated by McMahan in the office action
of 3/21/05 and reasserted in the final office action of 8/23/05. In making the rejection,
the Examiner reads the output buffers 42, 44 and 46 on the first, second and third drivers
of Applicant's invention. McMahan's output buffers each have a single corresponding
impedance. For instance, output buffer 42 has an impedance Z_1, output buffer 44 has an
impedance Z_2, etc. The output impedance is controlled by connecting or disconnecting
each of the output buffer stages.

        Claim 1 recites a programmable driver in accordance with an embodiment of
Applicant's invention. This embodiment includes a first driver, and a second driver that
is operably coupled in parallel with the first driver to drive a signal on to a line at a first

drive level when a drive control signal is in a first state and wherein, when the drive control signal is in a second state, the second driver is in a high-impedance state, such that the first driver drives the signal on to the line at a second drive level, wherein the first drive level is greater than the second drive level. McMahan does not disclose such a second driver. McMahan's output buffers are either connected, providing a predetermined impedance, or disconnected, so as to control the overall output impedance. McMahan does not disclose suggest or teach a configuration where the drive level is controlled in a first and second state between first and second drive levels. Further, McMahan does not disclose suggest or teach placing a second driver in a high-impedance state.

In the Final Office Action of 8/23/05, the Examiner's response to arguments focuses on McMahan teaching that the output buffer may be tri-stated based on the various quotes regarding the states of the control signals. McMahan does not teach that the various buffers may be tri-stated (e.g., on, off, or in a high impedance state), but teaches that the buffers are either connected via a coupling transistor to the output pin or not. (Column 4, lines 39-43) Thus, McMahan does not teach or suggest a second driver as is claimed in claim 1.

In addition, McMahan teaches that the output buffers are either connected, providing a predetermined impedance, or disconnected, so as <u>to control the overall output impedance</u>. McMahan does not disclose suggest or teach a configuration <u>where the drive level is controlled</u> in a first and second state between first and second drive levels [based on the load requirements of the line being driven by the programmable driver].

The applicant contends that controlling the output impedance of an output buffer as taught by McMahan is not the equivalent of, or suggestive of, controlling the driver level (e.g., the power level capabilities) of the programmable driver of the present invention. For instance, a buffer may have a desired output impedance but fail to provide the necessary drive if the load of the buffer is too great. McMahan does not address, teach, or suggest generating a control signal based on the load requirements of the

programmable driver as is presently claimed in claim 1, but teaches generating control signals based on a desired output impedance.

In particular, McMahan teaches, at column 4 lines 8-13, [a] high-performance application using a terminated line requires a low output impedance in order to obtain proper logic levels at the output. A lower cost, non-terminated line application requires a higher impedance to avoid unacceptable line ringing. The embodiments of Figures 3 and 4 provide an output buffer having a selectable output impedance.

Clearly, adjusting the output impedance of a buffer to accommodate for different line terminations of McMahan is not the equivalent of, or suggestive of, adjusting the drive capabilities of a programmable driver to accommodate for load requirements of claim 1 and dependent claims 2-6.

Claim 7 recites a programmable driver in accordance with an embodiment of Applicant's invention. This embodiment includes a plurality of tri-state drivers. McMahan does not disclose tri-state drivers. McMahan's output buffers are either connected, providing a predetermined impedance, or disconnected, so as to control the overall output impedance. Applicant thus believes that claim 7 and claims 8-12 that depend therefrom, are patentably distinct.

3.   Claims 13 - 24 have been rejected under 35 USC § 103 (a) as being unpatentable over McMahan in view of Pruett. The applicant respectfully disagrees with the present rejection because the combined teachings of McMahan, which fails to teach or suggest at least one claim element, with Pruett fails to render the present claims obvious.

Claim 13 recites a multiple function system on a chip integrated circuit in accordance with an embodiment of Applicant's invention. Like claim 1, this embodiment also includes a second driver that is operably coupled in parallel with the first driver to drive a signal on to a line at a first drive level when a drive control signal is in a first state

and wherein, when the drive control signal is in a second state, the second driver is in a high-impedance state, such that the first driver drives the signal on to the line at a second drive level, wherein the first drive level is greater than the second drive level. As set forth above, McMahan does not disclose suggest or teach a configuration where the drive level is controlled in a first and second state between first and second drive levels. Applicant thus believes that claim 13 and claims 14-18 that depend therefrom, are patentably distinct.

Claim 19 recites a multiple function system on a chip integrated circuit in accordance with an embodiment of Applicant's invention. Like claim 7, this embodiment also includes a plurality of tri-state drivers. As set forth above, McMahan does not disclose tri-state drivers. Applicant thus believes that claim 19 and claims 20-24 that depend therefrom, are patentably distinct.
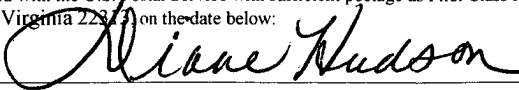
RESPECTFULLY SUBMITTED,

By: /Timothy W. Markison reg. 33,534/
Timothy W. Markison
Phone: (808) 665-1725
Fax No. (808) 665-1728